

CHAPTER 500 - WATER TECHNICAL REQUIREMENTS

500 GENERAL

The following specifications, in conjunction with applicable requirements of other parts of the Contract Documents, the Plans, and Addenda, shall govern the character and quality of material, equipment, and construction procedures for water work. All work done shall be in compliance with the requirements and restraints of the Occupational Safety and Health Administration (OSHA), the State of Oregon Accident Prevention Division regulations, and the Workers' Compensation Board. In addition, all work shall be completed in conformance with State of Oregon, Multnomah County, City of Portland and/or City of Gresham street opening permits.

501 PIPES, FITTINGS AND VALVES

501.01 DESCRIPTION

501.02 MATERIALS

501.03 CONSTRUCTION

501.04 MEASUREMENT AND PAYMENT (NOT APPLICABLE FOR PRIVATELY FINANCED PUBLIC IMPROVEMENTS)

502 APPURTENANCES

502.01 DESCRIPTION

502.02 MATERIALS

502.02.01 FIRE HYDRANT ASSEMBLY

502.02.02 BLOW-OFF UNITS

502.02.03 COMBINATION AIR VALVE UNIT

Combination air valve unit shall consist of a 2-inch double-strap service saddle, 2-inch brass ¼ bend (various end configurations), 2-inch RW gate valve (F.I.P. x F.I.P.), 2-inch brass nipples, 2-inch brass coupling (M.I.P. x Mueller 110 Compression), 2-inch ASTM B88 Type K rigid copper, 2-inch Val-matic #202C.2 or APCO #145C-2 combination air valve unit, 2-inch unions (Mueller 110 Compression), ~~Brooks #65 meter box without pipe holes~~ Jensen precast HN1730X12 concrete box with HPC 1730 SMC cover and HN1730-E concrete box extension or approved equal, 12-inch concrete blocks, Hot Box EZ.75 EZ Box or approved equal and all other items as noted on **Standard Detail 505A, Combination Air Valve Unit and Standard Detail 505B, Combination Air Valve Notes.**

502.02.04 WATER QUALITY SAMPLING STATIONS

502.02.05 CORROSION CONTROL MATERIALS

502.02.06 CAST IRON VALVE BOXES

502.02.07 METER BOXES AND COVER

502.02.08 2-INCH SERVICE SADDLES

502.03 CONSTRUCTION

502.04 MEASUREMENT AND PAYMENT (NOT APPLICABLE FOR PRIVATELY FINANCED PUBLIC IMPROVEMENTS)

503 WORK ON WATER SYSTEMS

503.01 DESCRIPTION

503.02 CONSTRUCTION

503.02.01 STORAGE OF EQUIPMENT AND MATERIALS

503.02.02 WATERLINE TAPPING

503.02.03 REMOVING EXISTING WATER WORKS MATERIALS

503.02.04 ABANDONING EXISTING MAINS AND VALVES

503.02.05 MAINTAINING SERVICE

503.02.06 FLUSHING

503.02.07 PRESSURE TESTING

503.02.08 CHLORINATION

503.02.09 CUT-IN AND CONNECTION TO EXISTING MAINS

503.02.10 IMPERVIOUS DAMS

~~In areas where a waterline is installed outside of paved surfaces and indicated on the plans or as directed by the Inspector, the Contractor shall place impervious dams to prevent groundwater movement along the trench. Dams shall be made of impervious backfill material composed of particles at least 50% of which pass a No. 200 sieve and with a plasticity index not less than 20, unless otherwise approved by the Engineer.~~

~~In areas where a waterline is installed under existing or future paved surfaces and indicated on the plans or as directed by the Inspector, the Contractor shall place controlled low-strength material (CLSM) dams to prevent groundwater movement along the trench. CLSM shall meet specifications as outlined **Subsection 206.02.05C**.~~

~~A dam shall fill the trench completely from side to side and top to bottom, except for the volume occupied by the pipeline and any materials required for surface restoration. Pipe in contact with clay or CLSM dam shall be wrapped with two layers of 8-mil polyethylene. Impervious dams shall meet the requirements of Section 206.03.16.~~

503.03 MEASUREMENT AND PAYMENT (NOT APPLICABLE FOR PRIVATELY FINANCED PUBLIC IMPROVEMENTS)